

ABSTRACT

A vibration isolator with non-circular seating features that allow a payload to be attached to a support plate without twisting cables of the isolator. The cables couple the support plate to a piston that can move within an air charged housing. The support plate may have a non-circular shoulder that can sit within a non-circular seat of the housing when the isolator is deflated. The non-circular shapes prevent rotation of the support plate and twisting of the cables when the payload is attached to the deflated isolator. The vibration isolator may also have anti-rotation features to prevent twisting of the cables when the isolator is charged and the support plate is in a fully extended position.